

Amendments to the Claims:

Please amend the claims as follows:

1. (Currently Amended) An electrosurgical pencil, comprising:

an elongated housing;

an electrically conductive element supported within the housing and extending distally from the housing, the electrically conductive element connectable to a source of electrosurgical energy; and

a motion sensor disposed within and supported on the housing and in electrical connection with the source of electrosurgical energy, the sensor capable of detecting movement of the ~~[[electrically conductive element]]~~ electrosurgical pencil as the electrosurgical pencil is moved freely in space and communicating a signal to the source of electrosurgical energy relating to the movement of the ~~[[electrically conductive element]]~~ electrosurgical pencil, the source of electrosurgical energy supplying electrosurgical energy in response to the signal communicated from the sensor.

2. (Currently Amended) The electrosurgical instrument according to claim 1, wherein the sensor ~~for detecting movement of the electrically conductive element~~ is at least one of accelerometers, optical positioning systems, radiofrequency positioning systems, and ultrasonic positioning systems.

3. (Currently Amended) The electrosurgical instrument according to claim 1, wherein the electrically conductive element includes a longitudinal axis defined therethrough and

the sensor detects at least one of an axial movement of the [[electrically conductive element]] electrosurgical pencil along the longitudinal axis, a transverse movement across the longitudinal axis [[of the electrically conductive element]] and a rotational movement about the longitudinal axis [[of the electrically conductive element]].

4. (Currently Amended) The electrosurgical instrument according to claim 3, wherein the source of electrosurgical energy transmits a dissecting RF energy output in response to the detection of axial movement of the [[electrically conductive element]] electrosurgical pencil along the longitudinal axis.

5. (Currently Amended) The electrosurgical instrument according to claim 3, wherein the source of electrosurgical energy transmits a hemostatic RF energy output in response to the detection of transverse movement of the [[electrically conductive element]] electrosurgical pencil across the longitudinal axis.

6. (Original) The electrosurgical instrument according to claim 1, wherein the sensor is at least one of a differential parallel plate accelerometer, a balanced interdigitated comb-finger accelerometer, an offset interdigitated comb-finger accelerometer, and a film-type accelerometer.

7. (Currently Amended) The electrosurgical instrument according to claim 6, wherein the sensor includes:

a first accelerometer for detecting a movement of the [[electrically conductive element]] electrosurgical pencil in an axial direction along the longitudinal axis; and

a second accelerometer for detecting movement of the [[electrically conductive element]] electrosurgical pencil in a transverse direction across the longitudinal axis.

8. (Currently Amended) The electrosurgical instrument according to claim 7, wherein the first accelerometer is configured and adapted to transmit an output signal to the source of electrosurgical energy corresponding to the axial movement of the [[electrically conductive element]] electrosurgical pencil; and the second accelerometer is configured and adapted to transmit an output signal to the source of electrosurgical energy corresponding to the transverse movement of the [[electrically conductive element]] electrosurgical pencil.

9. (Original) The electrosurgical instrument according to claim 7, wherein each of the first and second accelerometers is at least one of a differential parallel plate accelerometer, a balanced interdigitated comb-finger accelerometer, an offset interdigitated comb-finger accelerometer and a film-type accelerometer.

10. (Original) The electrosurgical instrument according to claim 7, wherein each of the first and second accelerometers includes at least one piezoelectric film motion detector.

11. (Original) The electrosurgical instrument according to claim 1, wherein the source of electrosurgical energy substantially reduces the supply of electrosurgical energy when the sensor does not detect at least one of:

movement of the electrosurgical pencil for a predetermined period of time; and
movement of the electrosurgical pencil above a predetermined threshold level of movement.

12. (Original) The electrosurgical instrument according to claim 11, wherein the source of electrosurgical energy substantially increases the supply of electrosurgical energy when the sensor detects at least one of:

movement of the electrosurgical pencil following the predetermined period of time; and
movement of the electrosurgical pencil above the predetermined threshold level of movement.

13. (Original) The electrosurgical instrument according to claim 3, wherein the source of electrosurgical energy substantially reduces the supply of electrosurgical energy when the sensor does not detect at least one of:

movement of the electrosurgical pencil for a predetermined period of time; and
movement of the electrosurgical pencil above a predetermined threshold level of movement.

14. (Original) The electrosurgical instrument according to claim 13, wherein the source of electrosurgical energy substantially increases the supply of electrosurgical energy when the sensor detects at least one of:

movement of the electrosurgical pencil following the predetermined period of time; and
movement of the electrosurgical pencil above the predetermined threshold level of movement.

15. (New) An electrosurgical pencil, comprising:

an elongated housing;

an electrically conductive element supported within the housing and extending distally from the housing, the electrically conductive element being connectable to a source of electrosurgical energy; and

an accelerometer disposed within and supported on the housing and in electrical connection with the source of electrosurgical energy, the accelerometer detecting movement of the electrosurgical pencil and communicating a signal to the source of electrosurgical energy relating to the movement of the electrosurgical pencil, the source of electrosurgical energy supplying electrosurgical energy in response to the signal communicated from the accelerometer.

16. (New) The electrosurgical pencil according to claim 15, wherein the electrically conductive element includes a longitudinal axis defined therethrough and the accelerometer detects at least one of an axial movement of the electrosurgical pencil along the longitudinal axis, a transverse movement of the electrosurgical pencil across the longitudinal axis, and a rotational movement of the electrosurgical pencil about the longitudinal axis.

17. (New) The electrosurgical pencil according to claim 16, wherein the source of electrosurgical energy transmits at least one of:

a dissecting RF energy output in response to the detection of axial movement of the electrosurgical pencil along the longitudinal axis; and

a hemostatic RF energy output in response to the detection of transverse movement of the electrosurgical pencil across the longitudinal axis.

18. (New) The electrosurgical pencil according to claim 17, wherein the accelerometer includes:

a first accelerometer for detecting a movement of the electrically conductive element in an axial direction along the longitudinal axis; and

a second accelerometer for detecting movement of the electrically conductive element in a transverse direction across the longitudinal axis.

19. (New) The electrosurgical pencil according to claim 15, wherein the source of electrosurgical energy at least one of:

substantially reduces the supply of electrosurgical energy when the accelerometer does not detect at least one of:

movement of the electrosurgical pencil for a predetermined period of time; and

movement of the electrosurgical pencil above a predetermined threshold level of movement; and

substantially increases the supply of electrosurgical energy when the accelerometer detects at least one of:

movement of the electrosurgical pencil following the predetermined period of time; and

movement of the electrosurgical pencil above the predetermined threshold level of movement.

20. (New) An electrosurgical pencil, comprising:

a housing;

an electrically conductive element at least partially supported in the housing and extending therefrom, the electrically conductive element being connectable to a source of electrosurgical energy; and

a motion sensor disposed within the housing and in electrical connection with the source of electrosurgical energy, the sensor capable of detecting movement of the electrosurgical pencil, wherein the motion sensor de-activates a transmission of energy from the source of electrosurgical energy when the electrosurgical pencil is motionless for a period of time at least equal to a predetermined period of time.